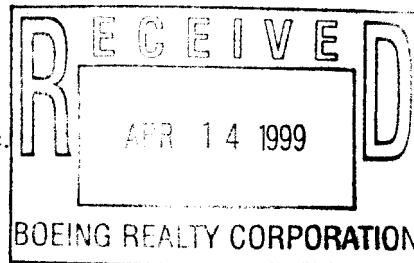




April 12, 1999

46420 4

Ms. Joann Ornelas  
Integrated Environmental Services, Inc.  
3990 Westerly Place, Suite 210  
Newport Beach, California 92660



**Project Deliverables**  
**Site Investigation Services**  
**Building 4, AOI 4**  
**Boeing Realty Corporation, C-6 Facility, Parcel B**  
**Los Angeles, California**

Dear Ms. Ornelas:

Harding Lawson Associates (HLA) has prepared this letter to transmit the project deliverables for site investigation services at former Building 4, Area of Interest (AOI) 4 at Boeing Realty Corporation's C-6 Facility, Parcel B, in Los Angeles, California. HLA's services were provided in accordance with our proposal dated January 12, 1999.

The following items are provided with this letter in hard-copy format:

- Description of site geology observed during the investigation
- Ten boring logs in gINT format
- One field daily report dated March 31, 1999 (hard copy only).

An electronic version of the above deliverables, excepting the field daily report, is provided on CD ROM as an attachment.

**Site Geology**

A total of 10 soil borings were advanced during site investigation activities to a maximum depth of 17 feet below ground surface (bgs). The borings were advanced using an hydraulic push drill rig. The site geologic descriptions are based on the soils encountered during drilling activities. Groundwater was not encountered during the investigation.

The borings encountered clay and silty sand to the depths investigated. A 3.5- to 7-foot thick layer of clay fill was found in all 10 of the borings. Underlying the fill is a layer of silty sand interpreted as native soil. The native silty sand sediment represents recent alluvium that is a common near surface deposit in the Los Angeles Basin.



April 12, 1999  
46420 4  
Ms. Joann Ornelas  
Integrated Environmental Services, Inc.  
Page 2

HLA has appreciated the opportunity to work with you on this project and looks forward to working with you on future projects. Should you have questions regarding this letter, please contact the undersigned.

Very truly yours,

**HARDING LAWSON ASSOCIATES**



Mark Clardy  
Project Manager

Attachments: Logs of Borings AOI4A-B1 to AOI4A-B10  
Field Investigation Daily Report, dated March 31, 1999 (4 sheets)  
CD ROM including Letter Report and Boring Logs

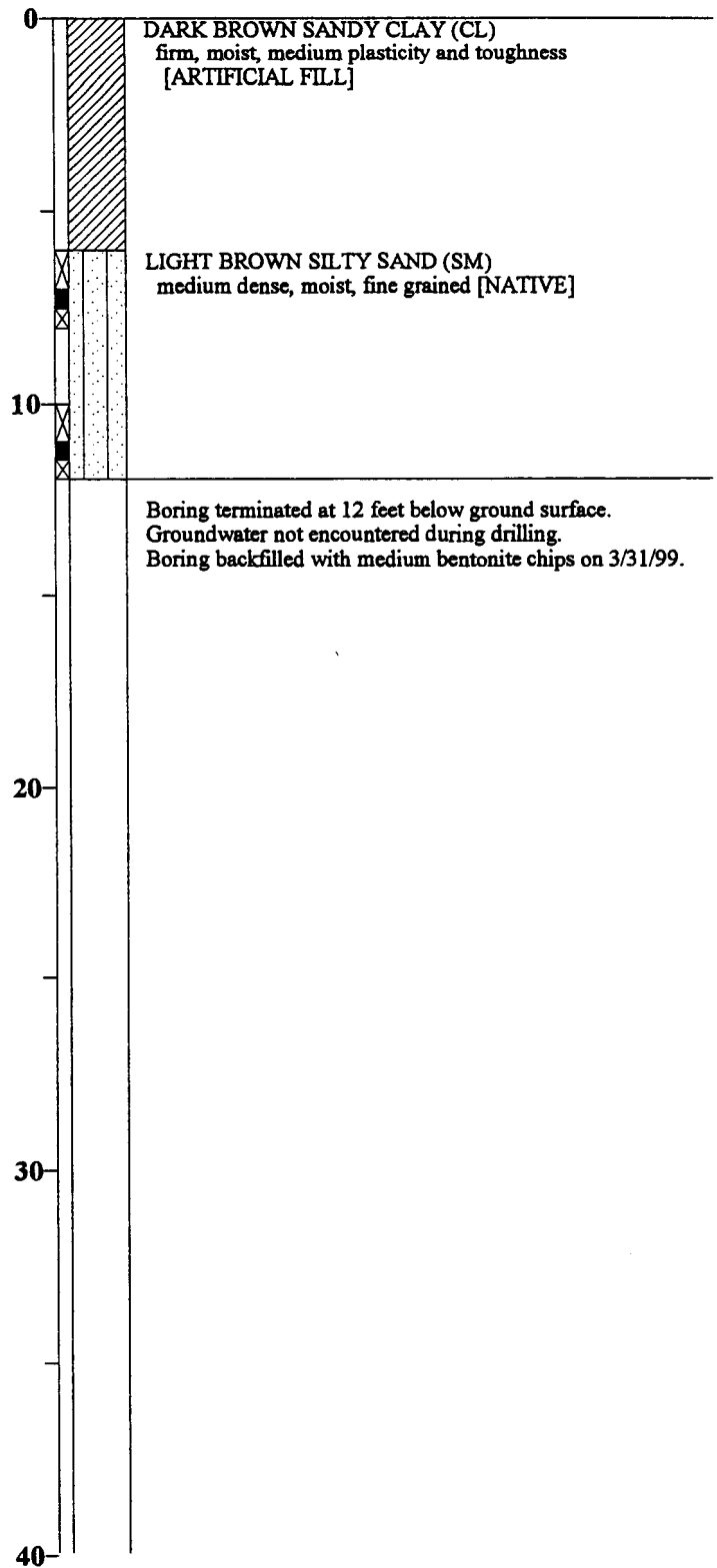
N:\BOEING\LETTERS\BLDG4LTR.DOC

cc: Mr. Mario Stavale - Boeing Realty Corporation

BOEING.C647

Equipment **Power Probe 9600**

Elevation **51.84 ft** Date **3/31/99**



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B1

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
Los Angeles, California

DRAWN  
HK

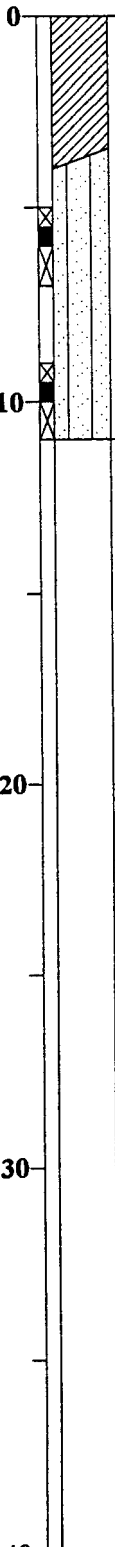
PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

REVISED DATE

Equipment **Power Probe 9600**Elevation **50.58 ft**Date **3/31/99**

0  

**DARK BROWN SANDY CLAY (CL)**  
 firm, moist, medium plasticity and toughness  
 [ARTIFICIAL FILL]

**LIGHT BROWN SILTY SAND (SM)**  
 medium dense, moist, fine grained [NATIVE]

10

Boring terminated at 11 feet below ground surface.  
 Groundwater not encountered during drilling.  
 Boring backfilled with medium bentonite chips on 3/31/99.

20

30

40

**Harding Lawson Associates**  
 Engineering and  
 Environmental Services

**Log of Boring AOI4A-B2**

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
 Los Angeles, California

DRAWN  
 HK

PROJECT NUMBER  
 46420-5

APPROVED

DATE  
 04/99

REVISED DATE

**HLA**

BOEING.C6/

Equipment **Power Probe 9600**

Elevation **50.09 ft**

Date **3/31/99**

0  
DARK BROWN SANDY CLAY (CL)  
firm, moist, medium plasticity and toughness  
[ARTIFICIAL FILL]  
LIGHT BROWN SILTY SAND (SM)  
medium dense, moist, fine grained [NATIVE]

10

Boring terminated at 11 feet below ground surface.  
Groundwater not encountered during drilling.  
Boring backfilled with medium bentonite chips on 3/31/99.

20

30

40



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B3

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
Los Angeles, California

DRAWN  
HK

PROJECT NUMBER  
46420-5

APPROVED

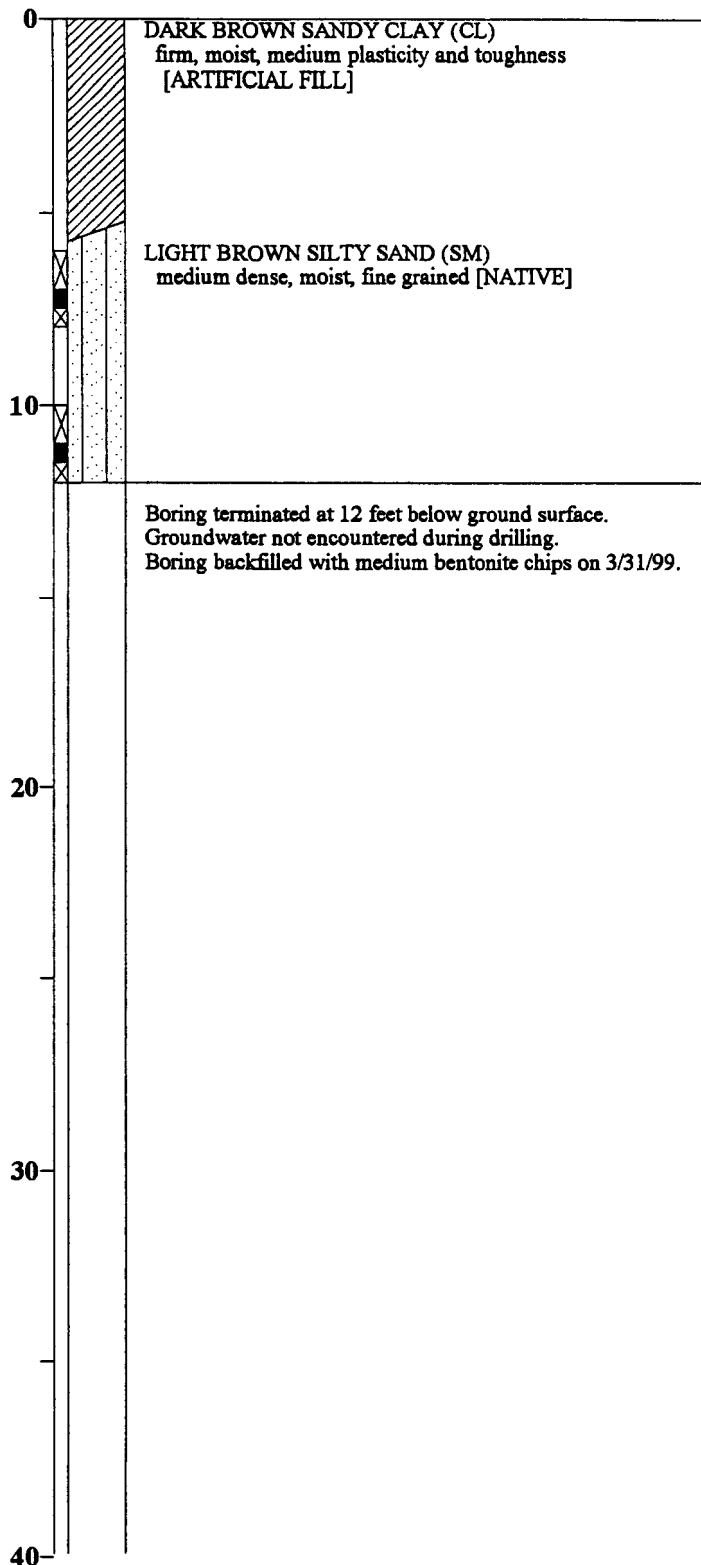
DATE  
04/99

REVISED DATE

BOEING-0547

Equipment Power Probe 9600

Elevation 52.11 ft Date 3/31/99



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B4

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
Los Angeles, California

DRAWN  
HK

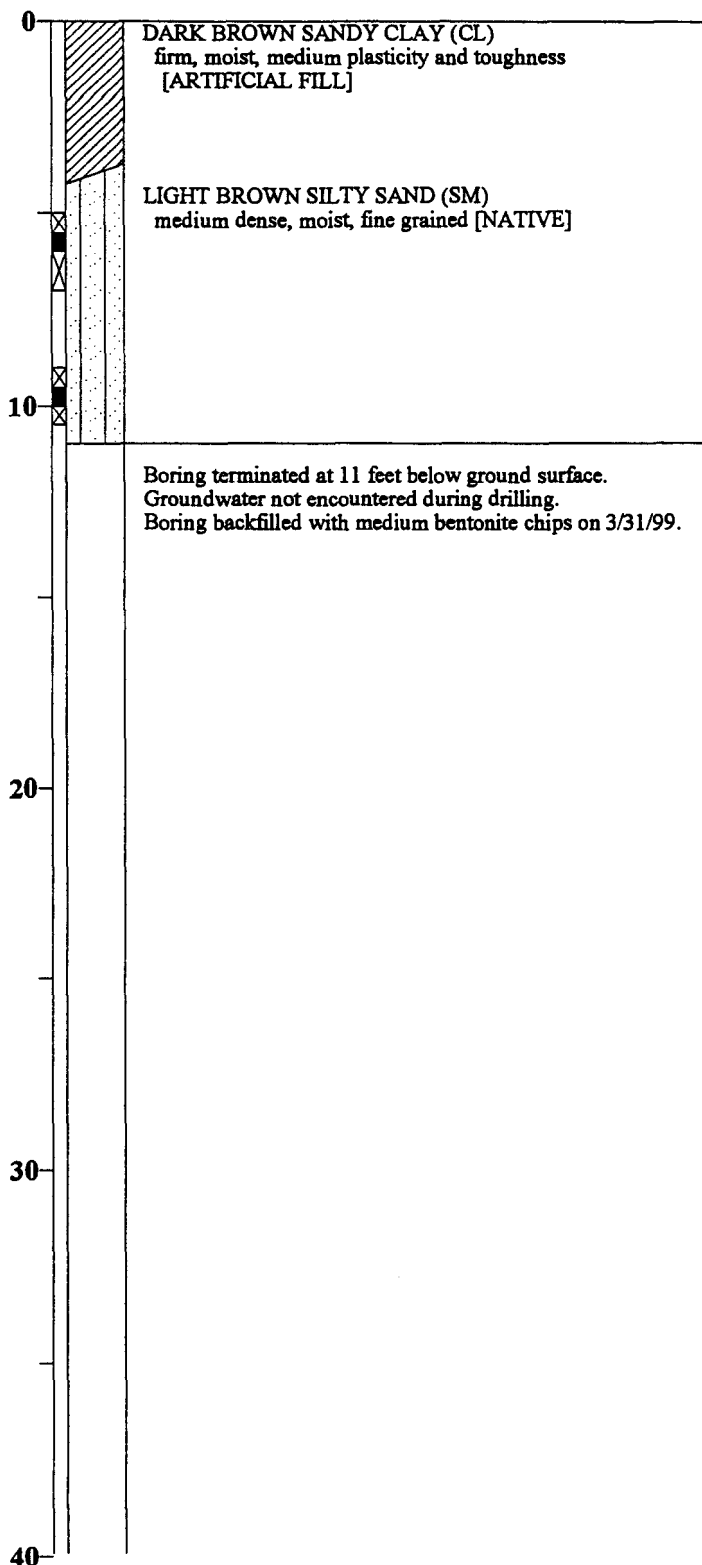
PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

REVISED DATE

Equipment **Power Probe 9600**  
 Elevation **50.93 ft** Date **3/31/99**



**Harding Lawson Associates**  
 Engineering and  
 Environmental Services

**Log of Boring AOI4A-B5**

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
**Los Angeles, California**

DRAWN  
HK

PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

REVISED DATE

BOEING.C31/

Equipment Power Probe 9600

Elevation 50.12 ft

Date 3/31/99

0  
DARK BROWN SANDY CLAY (CL)  
firm, moist, medium plasticity and toughness  
[ARTIFICIAL FILL]

LIGHT BROWN SILTY SAND (SM)  
medium dense, moist, fine grained [NATIVE]

increasing moisture content

10

Boring terminated at 11 feet below ground surface.  
Groundwater not encountered during drilling.  
Boring backfilled with medium bentonite chips on 3/31/99.

20

30

40



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B6

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
**Los Angeles, California**

DRAWN  
HK

PROJECT NUMBER  
46420-5

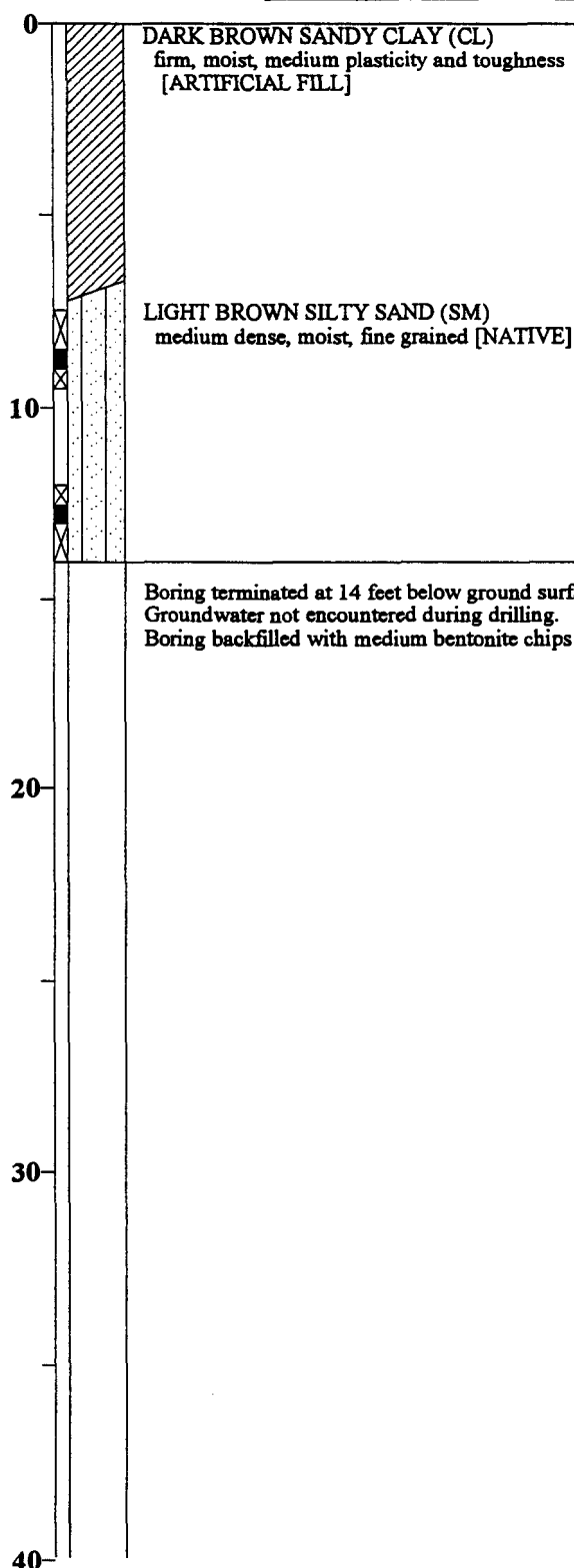
APPROVED

DATE  
04/99

REVISED DATE

BOE-C6-0043351



Equipment Power Probe 9600Elevation 53.14 ftDate 3/31/99

**Harding Lawson Associates**  
Engineering and  
Environmental Services

**Log of Boring AOI4A-B7**

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
**Los Angeles, California**

DRAWN  
HK

PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

REVISED DATE

BOEING C6/

Equipment **Power Probe 9600**

Elevation **51.63 ft** Date **3/31/99**

0  
DARK BROWN SANDY CLAY (CL)  
firm, moist, medium plasticity and toughness  
[ARTIFICIAL FILL]

LIGHT BROWN SILTY SAND (SM)  
medium dense, moist, fine grained [NATIVE]

10

Boring terminated at 11 feet below ground surface.  
Groundwater not encountered during drilling.  
Boring backfilled with medium bentonite chips on 3/31/99.

20

30

40



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B8

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
**Los Angeles, California**

DRAWN  
HK

PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

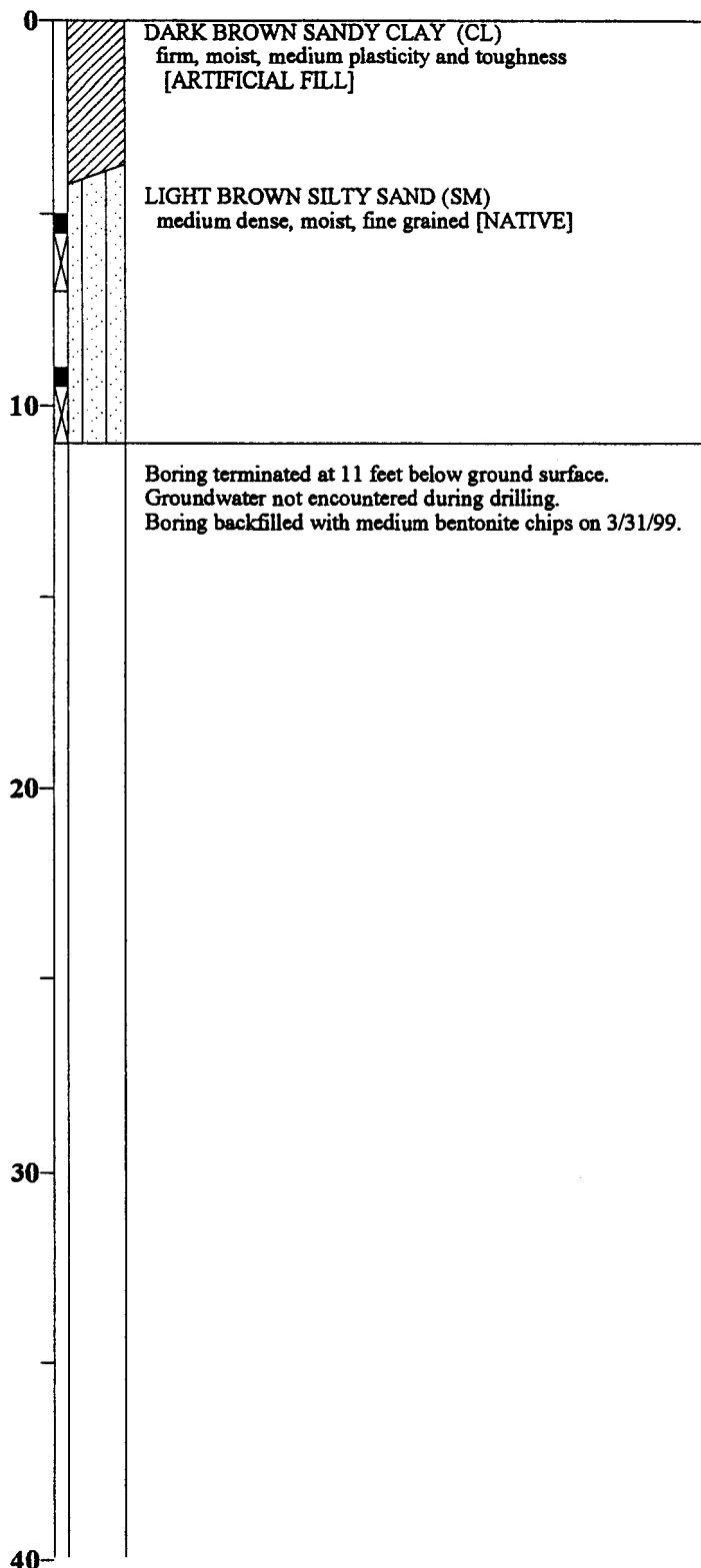
REVISED DATE

BOE-C6-0043353

BOILING, G217

Equipment Power Probe 9600

Elevation 50.60 ft Date 3/31/99



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B9

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
Los Angeles, California

DRAWN  
HK

PROJECT NUMBER  
46420-3

APPROVED

DATE  
04/99

REVISED DATE

BORING C-6/

Equipment **Power Probe 9600**

Elevation **49.91 ft**

Date **3/31/99**

0  
DARK BROWN SILTY CLAY (CL)  
firm, moist, medium plasticity, trace sand [ARTIFICIAL  
FILL]

LIGHT BROWN SILTY SAND (SM)  
medium dense, moist, fine grained [NATIVE]

10

20

30

40

Boring terminated at 16 feet below ground surface.  
Groundwater not encountered during drilling.  
Boring backfilled with medium bentonite chips on 3/31/99.



**Harding Lawson Associates**  
Engineering and  
Environmental Services

## Log of Boring AOI4A-B10

(sheet 1 of 1)

PLATE

**Boeing Realty Corporation**  
**Los Angeles, California**

DRAWN  
HK

PROJECT NUMBER  
46420-5

APPROVED

DATE  
04/99

REVISED DATE

Project: BOEING - BLDG. 4 SOIL BORINGS Job No.: 46420-2  
 Subject: FIELD INVESTIGATION DAILY REPORT Date: 3-31-99  
 Equipment Rental: \_\_\_\_\_ Company: \_\_\_\_\_ To: M. CLARDY  
 Equipment Hours: \_\_\_\_\_ F.E. Time from: \_\_\_\_\_ to: \_\_\_\_\_ By: V. MATHUR

(outside service and expense record must be attached for any outside costs)

me  
4/1/99

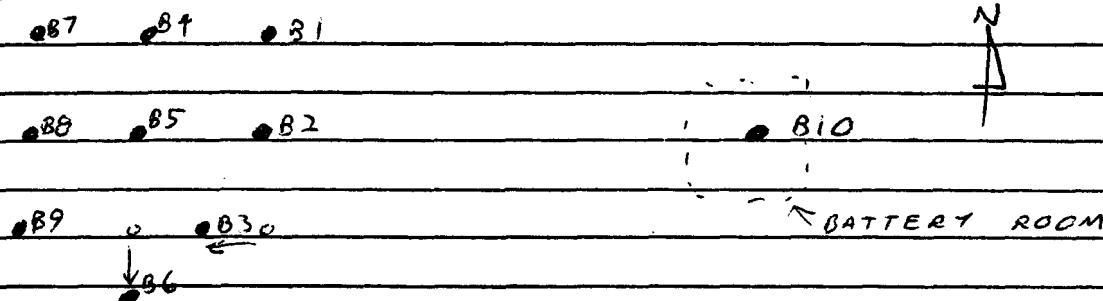
05:30 LEAVE FOR SITE, PICK UP ICE.

07:00 MEET ANDERSON (IES) AND GREGG DRILLING (JOE + MARTIN)

07:20 H+S MEETING WITH BATLEY CONSTRUCTION, SET UP  
ON BATTERY ROOM BORING B10.

08:28 DUPLICATE B10 AT 15' SAMPLE TAKEN (1SD)

08:38 B10 COMPLETE. MOB TO GRID LOCATION B1. DRILL  
B1 TO B9 IN SEQUENCE.



10:00 SHIFT B3 WEST ABOUT 6' FROM ORIGINAL GRID LOCATION  
DUE TO CONCRETE AT 2' BGS.

11:35 SHIFT B6 SOUTH ABOUT 8' FROM ORIGINAL GRID  
LOCATION DUE TO CONCRETE AT 2' BGS.

12:05 UPDATE M. CLARDY. 3 HOLES REMAIN.

13:30 UPDATE M. CLARDY, RINSATE BLANK REMAINS.

14:00 GREGG DISPOSED 5 GAL OF DECON. WATER INTO  
BAKER TANK. GREGG DRILLING OFFSITE. VMA FILLING  
OUT C.O.C'S.

15:20 HEAD TO OCA LAB

16:24 SUBMIT SAMPLES TO OCA LAB.

Attachments:

Initial VM



4620 E. Elwood, Suite 4  
Phoenix, AZ 85040  
(602) 736-0960 Fax (602) 736-0961

Lab Job No: \_\_\_\_\_  
Page \_\_\_\_\_

(602) 736-0960 Fax (602) 736-0970

**(714) 832-0064, Fax (714) 832-0067**

REQUIRED TAT: 24 HR

CUSTOMER INFORMATION				PROJECT INFORMATION			
COMPANY: Harding Lawson Associates		PROJECT NAME: BLDG 4, AOI 4, ERC					
SEND REPORT TO: J. Ornelas - IESI		NUMBER:					
ADDRESS: 30 Corp Park		LOCATION:					
Tulane, LA		ADDRESS:					
PHONE:		FAX:					
SAMPLED BY: V. Mathus							
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	
AOI 4 - B10 - 1 - 0.5	1	3-31-99	0800	SOIL	6" Brass	None	
AOI 4 - B10 - 2 - 5			0810				
AOI 4 - B10 - 3 - 10			0822				
AOI 4 - B10 - 4 - 15.0			0828				
AOI 4 - B10 - 4 - 15			0831				
AOI 4 - B1 - 1 - 7			0805				
AOI 4 - B1 - 2 - 11			0912				
AOI 4 - B2 - 1 - 5.5			0927				
AOI 4 - B2 - 1 - 9.5			0933				
AOI 4 - B3 - 1 - 5.5			1008				
AOI 4 - B3 - 2 - 9.5			1016				
AOI 4 - B4 - 1 - 7			1035				
AOI 4 - B4 - 2 - 11			1040				
AOI 4 - B5 - 1 - 5.5			1059				
Total No. of Samples: 14							
Method of Shipment:							
Relinquished By:		Date/Time:		Received By:		Date/Time:	
V. Mathus		3/31/99 16:25		V. Mathus		3/31/99 16:25	
Relinquished By:		Date/Time:		Received By:		Date/Time:	
Relinquished By:		Date/Time:		Received For Lab By:		Date/Time:	
				V. Mathus		3/31/99 16:25	

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.



# Analysis Request and Chain of Custody Record

ORANGE COAST ANALYTICAL, INC.  
3002 Dow, Suite 532  
Tustin, CA 92780  
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4  
Phoenix, AZ 85040  
(602) 736-0960 Fax (602) 736-0970

Lab Job No: 2 of 3  
Page

REQUIRED TAT: 24 HR

CUSTOMER INFORMATION				PROJECT INFORMATION				ANALYSIS/METHOD REQUEST		REMARKS/PRECAUTIONS	
COMPANY: <u>HERNIMES ASSOCIATION</u>	PROJECT NAME: <u>BLDG 4, AOI 4, BRC</u>										
SEND REPORT TO: <u>J. GONZALEZ - TEST</u>	NUMBER: <u></u>										
ADDRESS: <u>ORANGE PARK</u>	LOCATION: <u></u>										
<u>ORANGE CA</u>	ADDRESS: <u></u>										
PHONE: <u></u>	FAX: <u></u>										
SAMPLED BY: <u>V. AIA THUR</u>											
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.					
AOI 4 - 85 - 2 - 9.5	1	3-31-99	1106	SOIL	4.5 BROS	NONE	X				
AOI 4 - 86 - 1 - 5			1143					HOLD			
AOI 4 - 86 - 2 - 9			1148					HOLD			
AOI 4 - 87 - 1 - 8.5			1226					HOLD			
AOI 4 - 87 - 2 - 12.5			1233					HOLD			
AOI 4 - 88 - 1 - 5.5			1246				X				
AOI 4 - 88 - 2 - 9.5			1253					HOLD			
AOI 4 - 89 - 1 - 5			1312					HOLD			
AOI 4 - 89 - 2 - 9			1318					HOLD			
AOI 4 - 89 - 3 - 1	3		1345	WATER	* JAR 40B	1 POLY 11103	X	X	X	* 2 POLY 1 A108R	
AOI 4 - C1/B1.2.3-1-1	1		1008	CONCRETE SOIL		NONE	X				
AOI 4 - C2/B1.2.3-2-5	1		1018				X				
AOI 4 - C3/B4.5.6-1-1	1		1143				X				
AOI 4 - C4/B4.5.6-2-5	1		1148				X				
Total No. of Samples: <u>14</u>							Method of Shipment:				
Relinquished By: <u>W. J. Hernandez</u>		Date/Time: <u>3/31/99 16:25</u>		Received By:		Date/Time:		Reporting Format: (check) NORMAL <input type="checkbox"/> S.D. HMMMD <input type="checkbox"/> RWQCB <input type="checkbox"/> OTHER <input type="checkbox"/>			
Relinquished By:		Date/Time:		Received By:		Date/Time:		Sample Integrity: (check) intact <input type="checkbox"/> on ice <input type="checkbox"/>			
Relinquished By:		Date/Time:		Received For Lab By:		Date/Time:					

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.



ORANGE COAST ANALYTICAL, INC.  
3002 Dow, Suite 532  
Tustin, CA 92780  
(714) 832-0064, Fax (714) 832-0067

4620 E. Elwood, Suite 4  
Phoenix, AZ 85040  
(602) 736-0960 Fax (602) 736-0970

# Analysis Request and Chain of Custody Record

Lab Job No: 3  
Page 3 of 3

REQUIRED TAT: 24 HR

CUSTOMER INFORMATION				PROJECT INFORMATION			
COMPANY: <u>HARDING LAMSON</u>				PROJECT NAME: <u>BLOG 4, AOI 4, BRC</u>			
SEND REPORT TO: <u>J. GONZALEZ - IFSI</u>				NUMBER: <u></u>			
ADDRESS: <u>30 CORP PARK</u>				LOCATION: <u></u>			
<u>IRVINE CA</u>				ADDRESS: <u></u>			
PHONE: <u></u>				SAMPLED BY: <u>V. MATHER</u>			
FAX: <u></u>							
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE	PRES.	REMARKS/PRECAUTIONS
<u>AOI 4 - C5/87,89-1-1</u>	<u>1</u>	<u>3-31-99</u>	<u>1312</u>	<u>GRAB</u>	<u>JAR</u>	<u>NONE</u>	<u>X</u>
<u>AOI 4 - C6/87,89-2-5</u>	<u>1</u>	<u>3-31-99</u>	<u>1318</u>	<u>GRAB</u>	<u>JAR</u>	<u>↓</u>	<u>X</u>
<div style="text-align: center; font-size: 2em; transform: rotate(45deg);">X</div>							
Total No. of Samples: <u>2</u>				Method of Shipment:			
Relinquished By: <u>V. Mather</u>		Date/Time: <u>3-31-99 16:25</u>		Received By:		Date/Time:	
Relinquished By:		Date/Time:		Received By:		Date/Time:	
Relinquished By:		Date/Time:		Received For Lab By: <u>V. Mather</u>		Date/Time: <u>3-31-99 16:25</u>	
Reporting Format: (check) NORMAL <input type="checkbox"/> S.D. HMMD <input type="checkbox"/> RWQCB <input type="checkbox"/> OTHER <input type="checkbox"/>				Sample Integrity: (check) intact <input type="checkbox"/> on ice <input type="checkbox"/>			

All samples remain the property of the client who is responsible for disposal. A disposal fee may be imposed if client fails to pickup samples.

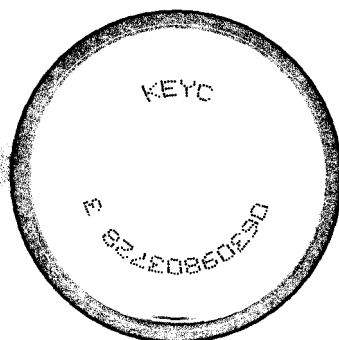


CD-R

COMPACT DISC RECORDABLE

TITLE

**RICOH**



TYPE

**74**

650MB

DATA

COMPACT  
**disc**  
Recordable